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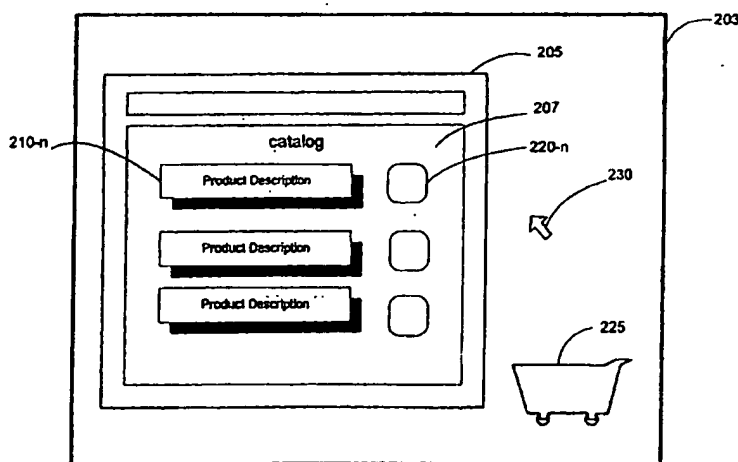
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(54) Title: **SYSTEMS AND METHODS FOR ORDERING PRODUCTS OVER A NETWORK**



(57) Abstract: Systems and methods for purchasing products include using a computing device to contact a vendor server via a network and review a catalog that includes product icons, each product icon representing a product for sale. Each products icon has associated product metadata that includes information related to the corresponding product. Product icons, representing products of interest, are added from vendor web sites to a local shopping cart, associated product metadata is stored on the computing device. A shopping manager residing on the computing device orders a product whose product icon is selected from the local shopping cart. The shopping manager submits an order request, including information extracted from the associated product metadata and payment information stored on the computing device, with a contact location identified in the product metadata to order the selected product.

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SYSTEMS AND METHODS FOR ORDERING PRODUCTS OVER A NETWORK**FIELD OF THE INVENTION**

5 The present invention relates generally to systems and methods for completing transactions over a computer network, and more particularly to systems and methods for ordering products over a computer network, such as the Internet.

BACKGROUND

10 It has become increasingly popular to engage in electronic commerce, i.e., to purchase goods and services over a network, such as the Internet, and particularly the World Wide Web. The network generally includes a large number of computers and computer networks that are interconnected through various communications links.

15 A consumer, using a web browser or other interactive application on a client computer, may contact a vendor web site on a remote server computer system via the network. The server may send the client computer web pages of information, which the web browser may display for the consumer on the client computer. For example, the web pages may include a catalog or other list of goods or services available for purchase from the vendor that the purchaser may review.

20 When the consumer is interested in making a purchase, he or she may select one or more products from the web pages and add them to a virtual "shopping cart," which the server uses to identify the products of interest. When the consumer is finished selecting products for purchase, the server may prompt the purchaser for information to complete the order. This may include the consumer's name, his or her method of payment, generally a credit card, and shipping information.

25 However, the virtual "shopping cart" does not allow the consumer to freely shop across multiple vendors' web sites. This is because the virtual "shopping cart" resides only on the server used to access a particular vendor's web site. As a result, the consumer is restricted to adding products to the virtual "shopping cart" only from the respective vendor's web site. In addition, when the consumer leaves a vendor's web site, the products in the "shopping cart" are generally lost. Thus, it may be difficult or
30 inconvenient for a consumer to compare goods or services offered by competitors on their respective web sites.

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Furthermore, when the consumer is ready to make a purchase, the consumer is generally required to enter payment and shipping information each time that he or she makes a purchase. This generally requires accessing a particular vendor's web site, selecting products for purchase, and entering payment and shipping information each time
5 that he or she wishes to purchase a product. Thus, a consumer must generally provide personal information, such their name, address, and payment method, e.g., credit card number, to the vendor, risking that their personal or financial information may be misused by the vendor or otherwise may fall into the wrong hands.

Accordingly, systems and methods that facilitate online shopping or otherwise
10 provide online purchasers greater control over purchasing would be considered useful.

SUMMARY OF THE INVENTION

The present invention is directed to systems and methods for conducting transactions via a computer network, such as the Internet, and more particularly for
15 facilitating online purchases of products, e.g., across multiple vendors' web sites.

An online shopping network, in accordance with one aspect of the present invention, includes one or more vendor servers operated by vendor(s) selling products online. Each vendor server includes one or more web pages, each web page including a catalog of products available from one or more vendors. The web page(s) for each vender
20 server further includes product icons, each product icon representing a product available from the catalog and having associated product metadata. The product metadata for each product icon includes product information identifying the product associated with the product icon and may also include order fulfillment information for the product. In addition, the product metadata includes a contact location, such as a uniform resource
25 identifier ("URI"), e.g., a URL, identifying a location where an order request, e.g., including shipping and payment information, may be sent to order the product associated with the product icon. Alternatively, the product metadata may be an address, e.g., a URI, where information, such as product ID, contact location, and the like, may be obtained via the network.

30 During an online shopping session, a user may connect a computing device to a vendor server accessible via the network and download a vendor's web page to the computing device. The vendor's web page may be displayed to the user on the computing

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device. A desktop shopping cart, provided by a shopping manager residing locally on the computing device, may also be displayed to the user on the computing device.

The user may add a product icon representing a product of interest from the vendor's web page to the desktop shopping cart. This may be done, for example, by
5 dragging the product icon representing the product of interest from the vendor's web page onto the desktop shopping cart. When the product icon is added to the desktop shopping cart, the product metadata associated with the selected product icon is transferred and stored locally on the computing device.

The user may continue their online shopping session by connecting to other vendor
10 servers via the network and adding one or more product icons from these other web pages to the desktop shopping cart. Each time a product icon is added to the desktop shopping cart, the product metadata for that product icon is stored locally on the computing device.

At the conclusion of the user's online shopping session, the shopping manager, residing locally on the computing device, may be directed to order one or more of the
15 products identified by selected product icons in the desktop shopping cart. For example, the user may have selected two or more similar or competing products offered on competitors' respective web sites. The user may compare the product metadata associated with each of the products, e.g., comparing price, shipping options, and the like, to decide which of the products to order. Because the product metadata of each of the competing
20 products may be stored on the user's computing device, the user may compare the products and make an order decision "offline," i.e., without being connected to any of the competitors' web sites or the network at all. Alternatively, if the product metadata includes a URI, the shopping manager may automatically contact the location identified by the URI to present information to the user for each product of interest.

25 For each selected product to be ordered in the desktop shopping cart, the shopping manager may automatically generate an order request, e.g., including payment and shipping information based upon the product metadata associated with the respective product icon, and personal information stored locally on the computing device. To order each product, the shopping manager may connect the computing device to the contact
30 location included in the respective product metadata for that product. The shopping manager may then send the order request to the contact location to initiate ordering the desired product(s).

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Other objects and features of the present invention will become apparent from consideration of the following description taken in conjunction with the accompanying drawings.

5

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of an online shopping network, according to one embodiment of the present invention.

FIG. 2 is a drawing showing the contents of a display screen, according to one embodiment of the present invention.

10

FIG. 3 is a flowchart showing steps for adding a product icon to a desktop shopping cart, according to one embodiment of the present invention.

FIG. 4 is a flowchart showing steps for placing an order for a product with a vendor server, according to one embodiment of the present invention.

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DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIG. 1 shows a diagram of an online shopping network 1 according to one embodiment of the present invention. The network 1 includes one or more, and, preferably, a plurality of vendor servers 15-n operated by one or more vendors selling products online. For simplicity, only two vendor servers 15-n are shown in FIG. 1, although, it will be appreciated by those skilled in the art that any number of vendor servers 15-n may be included. The online shopping network 1 also includes a computing device 5 operated by a user. The computing device 5 is connectable to each of the vendor servers 15-n via a communication link 12-n, such as an Internet link. The computing device 5 includes, but is not limited to, a desktop computer, a laptop, a Wireless Access Protocol ("WAP") telephone, a personal digital assistant ("PDA"), or any other device capable of supporting a shopping manager, either as a software module or a hardware component, such as an embedded chip, as described further below.

The online shopping network 1 may further include a merchant bank 25-n connectable to each vendor server 15-n. The merchant bank 25-n may include a merchant account that holds electronic funds for the vendor(s) associated with the corresponding vendor server 15-n. In addition, the online shopping network 1 may include a settlement house 30 that includes a consumer account that holds electronic funds available for online

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transactions by the user. The consumer account may include, but is not limited to, a credit card account, a prepaid account, a Paypal account, and the like. The settlement house 30 may also include a billing account that periodically bills the user for online purchases, for example, by adding the purchase charges to the user's telephone or other utility bill. The merchant bank 25-n is connectable to the settlement house 30 via a transaction interface 27-n that supports the transfer of electronic funds between the merchant bank 25-n and the settlement house 30. The transaction interface 27-n may include, but is not limited to, a Value Added Network ("VAN") or an Electronic Data Interface ("EDI").

Each vendor server 15-n includes one or more web pages that may be downloadable to the computing device 5 via the Internet or another network. The web page(s) may include a catalog of products for sale by or otherwise available from the respective vendor. The catalog may include descriptions and images of the products. The catalog also includes product icons, each product icon representing one of the products for sale in the catalog. Each product icon is preferably contained in a graphical file, including, but not limited to, a GIF file or a JPEG file. The web page(s) further includes product metadata attached to or embedded in the graphical file of each product icon. The product metadata for each product icon may include product information and/or order fulfillment information for the product represented by the product icon. Alternatively, the product metadata may include an address, such as a uniform resource identifier ("URI"), that may identify a location where such information may be obtained.

The product information in the product metadata may include a product ID identifying the product represented by the corresponding product icon, a vendor ID identifying the respective vendor, a unit cost, a picture of the product, and/or a description of the product.

The order fulfillment information preferably includes a contact location identifying a location where an order request may be sent to order a product from a respective vendor. The contact location may include a URI, e.g., a Uniform Resource Locator ("URL") or a resolvable address, identifying a vendor server 15-n or other web site. A URI, rather than identifying a contact location, may identify a process for identifying or otherwise contacting the contact location, e.g., by uniquely identifying a device, which may be movable between one or more specific locations. Alternatively, the contact location may

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be a telephone number, e.g., corresponding to a fax machine, or an e-mail address, as described further below.

In addition, the order fulfillment information in each product metadata may include shipping options and payment method options for the product represented by the
5 corresponding product icon. The shipping options may include different shipping carriers and delivery services available for shipping the product. The payment options may include different payment methods for purchasing the product, including, but not limited to, a credit card, a prepaid account, or adding a purchase charge to a utility bill.

Therefore, the product metadata provides a convenient method for providing
10 product information and/or order fulfillment information for a product by attaching the product metadata to or embedding the metadata in the graphical file of the corresponding product icon. The product metadata may include embedded binary data, a Uniform Resource Identifier ("URP"), or an ActiveX component. The product metadata may also include a tag written in HTML, XML, or Javascript. Various methods for attaching
15 metadata to or embedding metadata in a graphical file are well known in the art. Although conventional metadata is typically limited to a description of the graphical file and the like, it will be apparent to those skilled in the art how to use these methods to provide product metadata according to the present invention.

The computing device 5 further may include a user interface, such as a display 7, a
20 keyboard 9, and a mouse 11 for interfacing with the user. Alternatively, a track ball or touch pad may be used in place of the mouse 11 for compact computers, such as a laptop, or other user interfaces may be included. The computing device 5 also includes memory (not shown) for storing programs and information, including, but not limited to, Random Access Memory ("RAM") and a hard drive. The computing device 5 further includes a
25 web browser stored locally in memory for receiving the web pages from the vendor servers 15-n and displaying the web pages on the display 7. The web browser may be any commercially available web browser including, but not limited to, Netscape's Navigator™ or Microsoft's Internet Explorer™. The computing device 5 also includes a shopping manager (not shown), residing locally on the computing device 5, for conducting online
30 shopping via the shopping network 1. The shopping manager may include special application software stored locally in memory on the computing device 5. Alternatively, the shopping manager may be an embedded hardware component. The term "shopping

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manager” is used generally herein to refer to an embedded Web server, or any combination of hardware-based components and/or software-based modules that may perform the features described herein.

The computing device 5 further includes personal information that may be supplied
5 by the user and stored locally in memory on the computing device 5. The personal information may include user payment account information, e.g., a credit card number, and/or billing account information for conducting transactions with the settlement house 30. The personal information may also include an address book listing addresses of people or places to whom the user may wish to send a product. Preferably, the personal
10 information is stored in a secure manner, e.g., by or within the shopping manager, thereby substantially protecting the personal information from inadvertent or unauthorized distribution or modification.

FIG. 2 shows a display screen 203 for conducting online shopping viewable on the display 7 of the computing device 5, according to one embodiment of the present
15 invention. The display screen 203 includes a web browser window 205 provided by the web browser for viewing web pages downloaded to the computing device 5. In FIG. 2, the web browser window 205 displays a web page downloaded from one of the vendor servers 15-n. The downloaded web page includes a catalog 207 of products available. The catalog 207 includes descriptions 210-n of the products and corresponding product icons
20 220-n. The display screen 203 further includes a local desktop shopping cart 225 provided by the shopping manager residing on the computing device 5. Finally, the display screen 203 includes a pointer 230 that may move within the display screen 203 in response to corresponding movement of the mouse 11 or other user interface by the user.

Preferably, the shopping manager allows the user to relocate the desktop shopping
25 cart 225 to any desired location within the display screen 203. The user may relocate the desktop shopping cart 225 by moving the pointer 203 to the desktop shopping cart 225 and, while holding down a mouse button (not shown), dragging the desktop shopping cart 225 to a desired location within display screen 203.

The display screen 203 allows the user to readily view various products available
30 from different vendors via the online network 1 (FIG. 1). This is done by downloading the web pages from different vendor servers 15-n to the computing device 5 and viewing the web pages in the web browser window 205 on the display screen 203. As the user views

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products for sale on the display screen 203, the user may add products he or she is interested in ordering to the desktop shopping cart 225. The user may, for example, add products to the desktop shopping cart 225 according to a "drag and drop" method, such as that described below, or other known methods, such as pull down menus, pop-up menus, and the like.

FIG. 3 shows the steps for adding products from the catalog 207 to the desktop shopping cart 225 according to a "drag and drop" method, in accordance with the present invention. In step 310, the user moves the pointer 230 to the product icon 220-n corresponding to the product he or she is interested in possibly ordering. In step 320, the user drags the product icon 220-n, while holding down a mouse button, onto the desktop shopping cart 225. Once the product icon 220-n is dragged onto the desktop shopping cart 225, in step 330, the user may release the product icon 220-n on the desktop shopping cart 225. In step 340, when the product icon is dropped on the desktop shopping cart 225, the shopping manager retrieves or otherwise receives the product metadata attached to or embedded in the graphical file of the product icon 220-n. In step 350, the shopping manager stores the retrieved product metadata locally in memory on the computing device 5. During this step, the shopping manager may also store the graphical file of the product icon locally on the computing device 5.

The product metadata stored locally on the computing device 5 allows the shopping manager to keep track of the products added to the desktop shopping cart 225. In addition, the product information and/or order fulfillment information contained in the product metadata provides the shopping manager with the information needed to order the product from a respective vendor.

Thus, the computing device 5 does not need to remain connected to the respective vendor server 15-n in order to allow a product to be ordered, and the shopping manager may be directed to order the product at a later time. The user may connect the computing device 5 to other vendor servers 15-n on the network 1 and add products from the other vendor servers 15-n to the desktop shopping cart 225. This may be done by repeating steps 310-350 for each product of interest whose product icon is added to the desktop shopping cart 225.

At any time, the user may use the shopping manager to view a list of products that the user has selected as being of interest, e.g., by opening a shopping cart window (not

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shown) that lists products in the desktop shopping cart 225. The user may bring up the shopping cart window on the display 7, for example, by double clicking on the desktop shopping cart 225 with the mouse 11.

The shopping cart window may list the products in the desktop shopping cart 225 using the product ID, product picture and/or the brief product description provided by the product metadata stored locally on the computing device 5. The shopping cart window also preferably displays the product icons associated with the products in the desktop shopping cart 225, since the user may quickly identify the products by their product icons. In addition, the shopping cart window may list the unit cost, the vendor ID, the shipping options, and/or the payment method options available for each product provided by the product metadata.

Thus, the shopping cart window may allow the user to select a product and review available information related to the product, which may be extracted from the product metadata. Alternatively, if the product metadata includes a URI, the shopping manager may contact the location identified by the URI to obtain and/or display the product information to the user. The shopping cart window may facilitate the user comparing different products, for example, which have been added to the desktop shopping cart from different vendors' web sites, e.g., operated by competitors. Thus, competing products may be compared directly on the computing device's display, without requiring the computing device to be connected to the respective vendors' web sites. If the product information is included in the product metadata stored on the computing device, the products may be compared while "offline," i.e., without being connected to the network at all.

If a product is no longer of interest, e.g., because a competing or other product has been selected, the product and/or its product icon may be discarded. For example, the product icon in the desktop shopping cart may be dragged and dropped into a trash can, whereupon the shopping manager may automatically delete the associated product metadata from the computing device.

The user may also review the product information to make ordering decisions. For example, the user may select shipping options and/or payment method options for each product by selecting desired options displayed in the shopping cart window. In addition, the user may specify the quantity of a product he or she wishes to order. Furthermore, the user may select a destination for shipment of the products, e.g., to their own address, to a

third party, or even to a URI if the product is electronic media. For example, the user may enter the address with the keyboard 9 or by pulling the address from an address book accessed from the menu on the shopping cart window or otherwise stored locally on the computing device 5.

- 5 The shopping cart may also display the total cost of the products in the desktop shopping cart 225 before and/or after shipping. The total cost of the products before shipping may be calculated by multiplying the unit cost of each product by the quantity of the product to determine the total cost of each product and by adding together the total cost of each product. The total cost after shipping may be calculated by adding the
- 10 shipping cost for the shipping options selected by the user to the total cost of the products. This may require that the shipping rates for the different shipping options be included in the product metadata.

- Preferably, the shopping cart window gives the user the option of closing the shopping cart window and resuming shopping or purchasing the products in the desktop
- 15 shopping cart 225.

- When the user decides to purchase one or more of the products in the desktop shopping cart 225, the shopping manager may be directed to complete an order request for each product to be ordered that is identified in the desktop shopping cart 225. The steps for ordering one product in the desktop shopping cart 225 will now be described with
- 20 reference to FIG. 4. In step 410, the shopping manager automatically generates an order request, which may include payment and shipping information related to the product to be ordered. For example, the shopping manager may assemble product information and/or order fulfillment information from the product metadata associated with the product icon for the product being ordered. In addition, the shopping manager may assemble personal
- 25 information stored locally on the computing device 5 to be included in the order request. Thus, the order request may include a product ID, a quantity of the product selected by the user, and a payment method option selected by the user, e.g., including user account or billing account information corresponding to the selected payment method. The user account or billing account information may be extracted from the personal information
- 30 stored locally on the computing device 5. The shipping information may include the shipping options selected by the user and the address of the recipient entered by the user.

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In step 420, the shopping manager connects the computing device 5 to a contact location, e.g., to a vendor server 15-n identified (directly or indirectly) by the product metadata. Preferably, the connection to the vendor server 15-n is a secure connection, such as a secure socket layer (SSL) connection.

5 Once connected to the appropriate vendor server 15-n, in step 430, the shopping manager transmits the order request, including the payment and shipping information, to the vendor server 15-n. Upon receiving the order request information, in step 440, the vendor server 15-n may send a confirmation to the computing device 5 that it has successfully received the order request. In step 450, the vendor server 15-n may send the
10 user account or billing account information, and the product and shipping cost to a corresponding merchant bank 25-n. In step 460, the merchant bank 25-n may transfer funds totaling the amount of the product and shipping cost from settlement house 30 to the merchant account. After completing the transaction, in step 470, the merchant bank 25-n may send a notice to the vendor server 15 that the product and shipping costs have been
15 credited to the merchant account. Alternatively, the order request may include a payment token that may be obtained by the shopping manager from the settlement house 30. Additional information on such a payment token may be found in application Serial No. 09/724,942, entitled "Systems and Methods for Conducting Electronic Media Transactions," filed on the same day with the present application and assigned to the
20 assignee of the present application (attorney docket 256/260), the disclosure of which is expressly incorporated herein by reference.

 In a further alternative, the order request may be handled in a manner that protects the user, e.g., that minimizes or substantially eliminates the vendor obtaining the user's personal information. For example, the order request may include a user identifier that
25 may be used by a common third party, such as the settlement house, that may already have the user's personal information. The third party may provide the vendor with the minimum information necessary to complete the order, e.g., a payment and a shipping destination.

 Upon receiving the funds from the settlement house 30, in step 480, the vendor
30 server 15-n may arrange for a shipping carrier, e.g., selected by the user, to pick up the product for delivery to the recipient specified by the user. Finally, in step 490, the vendor server 15-n may send a notice to the user that the order has been accepted and/or that the

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product has been shipped. The vendor server 15-n may send the notice to the user by e-mail, requiring that the user to supply his or her e-mail address to the vendor, e.g. as part of the order request.

Steps 410-490 are carried out for each product in the desktop shopping cart 225 to be ordered. Obviously, the shopping manager may group products from the same vendor together using the vendor ID included in the product metadata and may send their payment and shipping information to the appropriate vendor server 15-n at the same time. In addition, to reduce shipping cost, the vendor server 15-n may arrange to have products addressed to the same recipient shipped together. In a further alternative, a shipping carrier may provide a discount to the vendor and/or the user if all of the ordered products are shipped via that carrier even if shipped to and from different locations.

Those skilled in the art will appreciate that the operations of each vendor server 15-n may be performed by more than one computer system. For example, in one vendor server 15-n, two separate computer systems at different locations may be used for uploading the vendor's web page(s) to the computing device 5 and for processing orders from the computing device 5. Those skilled in the art will also appreciate that two or more vendor servers 15-n may share computing resources. For example, to reduce operating costs, two or more vendor servers 15-n may share the same computer system to process product orders from the computing device. In this example, the computing device 5 may send the vendor ID for a product to the shared computer system. That way, the shared computer system may use the received vendor ID to connect to the proper merchant bank 25-n or otherwise credit the proper vendor for the order.

In one embodiment of the present invention, the shopping cart window gives the user the option of selecting which products in the desktop shopping cart 225 to order. The user may select products from the shopping cart window, for example, by clicking on a check box located next to each product he or she is interested in purchases. For the case in which the product icons are displayed in the shopping cart window, the user may select the product he or she wishes to order by double clicking on its product icon with the mouse 11. This embodiment allows the user to select and purchase some of the products in the desktop shopping cart 225 while holding onto other products in the desktop shopping cart 225 for further purchasing consideration.

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In another embodiment of the present invention, the product information in the product metadata may include product model or variation options, which may include different colors and/or sizes in which the corresponding product is available. In this embodiment, the shopping cart window may allow the user to select product variation
5 options for a product. The shopping manager may then include the selected product variation options in the order request when ordering the product from the vendor.

In still another embodiment of the present invention, the shopping manager may send the payment and shipping information to a vendor via a FAX transmission. In this embodiment, the contact location in the product metadata may include a fax number for
10 contacting the corresponding vendor, and the computing device 5 may be equipped with a FAX/modem.

In this embodiment, the shopping manager may send an order request, e.g., including payment and shipping information for a product, to the vendor via a FAX transmission using the fax number provided in the product metadata. The vendor server
15 15-n receives the order request for the product using a fax machine corresponding to the fax number. The vendor server 15-n then may process the order request by sending the user account or billing account information, and the product and shipping cost to the appropriate merchant bank 25-n. Upon receiving the appropriate funds from the settlement house 30, the vendor server 15-n may arrange for shipment of the product to the
20 recipient.

Those skilled in the art will appreciate that a human operator may perform some of the operations of the vendor server 15-n described herein. For example, for a credit card order, the fax machine may print out a hardcopy of the user's credit card account information. The human operator may then read the hardcopy and send the credit card
25 account information to the merchant bank 25-n using a credit card terminal.

In yet another embodiment of the present invention, the shopping manager may send the order request, including the payment and shipping information, to a vendor via/using e-mail. In this embodiment, the contact location in the product metadata may include an e-mail address for contacting the corresponding vendor. The shopping manager
30 may send an order request for a product to the e-mail address included in the product metadata. The respective vendor server 15-n may then receive the order request via its e-

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mail address and automatically or manually process the order, similar to the embodiments described above.

In yet another embodiment of the present invention, the shopping manager may allow a user to view a history of their online shopping orders or purchases. In this
5 embodiment, the shopping manager may display an order history window on the display screen 203 listing products that have been ordered using the desktop shopping cart 225. Preferably, the order history window gives the user the option of listing the products by date of purchase, by vendor, by recipient or shipping destination, and/or by the user account used to pay for the products. In addition, the order history window may allow the
10 user to reorder products from the history window.

In a further embodiment of the present invention, the online shopping network 1 allows a user to order downloadable electronic media. In this embodiment, a vendor server 15-n may include an archive or memory containing electronic media available for purchase. The electronic media may include, but is not limited to, a music file, a video
15 file, or software. Upon receiving an order request for an electronic media from a computing device 5, the vendor server 15-n may retrieve the electronic media file from its archives. The vendor server 15-n may then complete the order by electronically transferring the retrieved electronic media to the computing device 5 or to another device identified in the order request.

20 The shopping manager, and methods for ordering online in accordance with the present invention offer several advantages to a user shopping online. For example, the shopping manager allows the user to place products from multiple vendors' web pages into the desktop shopping cart 225. This allows the user to easily shop across vendor web sites on the online shopping network 1. Once the user adds a product from one vendor's
25 web page to his or her desktop shopping cart 225, the user may connect to a different vendor server 15-n and add additional products to the desktop shopping cart 225 from other web sites. The product metadata for the products that are added to the desktop shopping cart 225 are stored locally on the computing device 5, providing the user with local control of his or her shopping decisions. Thus, the desktop shopping cart may
30 facilitate comparison shopping products available from different web sites. The shopping manager may subsequently contact the vendor for each selected product placed into the

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desktop shopping cart 225 and order the products at the end of the user's online shopping session.

Another advantage of the present invention is that it may provide greater security to the user and/or may free the user from having to reenter his or her user account information for each vendor from which he or she wishes to order a product. The shopping manager may access user account information already securely maintained by the shopping manager or otherwise stored locally on the computing device 5 and automatically transfer the information when ordering products from the vendor servers 15-n. Furthermore, because the personal information is stored locally, the user may easily update his or her user account or billing account information by simply updating the user account and billing account information and storing it locally on the computing device 5.

Still another advantage of the present invention is that many commercially available web browsers already allow a user to save graphical files and associated metadata from a web page onto the computing device 5. Such a web browser may give the user the option of saving a product icon and its product metadata in the memory of the computing device 5, e.g., in an e-mail archive, without having to drag the product icon onto the desktop shopping cart 225. This may allow a user to hold onto the product icon and its product metadata for further purchasing consideration while ordering other products from the desktop shopping cart 225. This may also allow a user to send the product icon and its product metadata to another computing device, for example, as an e-mail attachment.

While the invention is susceptible to various modifications, and alternative forms, specific examples thereof have been shown in the drawings and are herein described in detail. It should be understood, however, that the invention is not to be limited to the particular forms or methods disclosed, but to the contrary, the invention is to cover all modifications, equivalents and alternatives falling within the spirit and scope of the appended claims.

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CLAIMS

What is claimed is:

1. A computing device for ordering a product via a network, comprising:
a communication interface for contacting a remote vendor server via the network;
5 a display coupled to the communication interface for displaying a catalog received from the vendor server, the catalog comprising a plurality of product icons representing products available for sale from a vendor, each product icon having associated product metadata identifying the respective product and a contact location for purchasing the respective product;
10 a user interface coupled to the display for selecting a product icon from the catalog, whereupon the product metadata associated with the selected product icon is stored locally in memory on the computing device; and
a shopping manager resident on the computing device for submitting an order request via the communication interface to the contact location identified by the product
15 metadata associated with the selected product icon to initiate ordering of the product represented by the selected product icon.
2. The device of claim 1, wherein the order request includes payment information comprising a method of paying for the product and shipping information
20 identifying where the product is to be sent.
3. The device of claim 1, wherein the display is configured for displaying a local shopping cart, and wherein the user interface is configured for selecting a product icon from the catalog comprises and dragging the product icon from the catalog to the
25 local shopping cart.
4. The device of claim 1, wherein each product icon is contained in a graphical file and the product metadata associated with each respective product icon is embedded in the graphical file containing the respective product icon.
30
5. The device of claim 1, wherein the product metadata associated with each product icon comprises payment method options available for purchasing the product

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represented by the product icon, and wherein the shopping manager is configured for selecting a payment method option from the payment method options in the product metadata associated with the selected product icon, the selected payment method option being included in the order request submitted to the contact location.

5

6. The device of claim 5, wherein consumer account information corresponding to the selected payment method option and stored locally on the computing device is included in the order request submitted to the contact location.

10

7. The device of claim 1, wherein the product metadata associated with each product icon comprises shipping options available for shipping the product represented by the product icon, and wherein the shopping manager is configured for selecting a shipping method option from the shipping options in the product metadata associated with the selected product icon, the selected shipping option being included in the order request submitted to the contact location.

15

8. The device of claim 1, wherein the display is configured for displaying a local product icon identifying the selected product icon on the computing device.

20

9. The device of claim 1, wherein the product metadata associated with each product icon comprises a product ID identifying the product represented by the product icon, and wherein the product ID associated with the selected product icon is included in the order request submitted to the contact location.

25

10. The device of claim 1, wherein the shopping manager is configured for extracting the contact location from the product metadata stored locally on the computing device before submitting the order request.

30

11. A method for ordering a product via a network using a computing device, comprising:
contacting a remote vendor server;

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displaying a catalog received from the vendor server on the computing device, the catalog comprising a plurality of product icons representing products available for sale from a vendor, each product icon having associated product metadata identifying the respective product and a contact location for purchasing the respective product;

5 selecting a product icon from the catalog, whereupon the product metadata associated with the selected product icon is stored locally in memory on the computing device; and

 submitting an order request to the contact location identified by the product metadata associated with the selected product icon to initiate ordering of the product
10 represented by the selected product icon.

12. The method of claim 11, wherein the order request includes payment information comprising a method of paying for the product and shipping information identifying where the product is to be sent.

15

13. The method of claim 11, further comprising displaying a local shopping cart on the computing device, and wherein the step of selecting a product icon from the catalog comprises dragging the product icon from the catalog to the local shopping cart.

20 14. The method of claim 11, wherein the contact location identified by the product metadata comprises at least one of a Uniform Resource Identifier (URI), a FAX machine number, and an e-mail address.

15 15. The method of claim 11, wherein each product icon is contained in a graphical file and the product metadata associated with each respective product icon is attached to the graphical file containing the respective product icon.

16. The method of claim 11, wherein each product icon is contained in a graphical file and the product metadata associated with each respective product icon is
30 embedded in the graphical file containing the respective product icon.

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17. The method of claim 11, wherein the product metadata associated with each product icon comprises payment method options available for purchasing the product represented by the product icon.

5 18. The method of claim 17, further comprising selecting a payment method option from the payment method options in the product metadata associated with the selected product icon, and wherein the selected payment method option is included in the order request submitted to the contact location.

10 19. The method of claim 18, wherein consumer account information corresponding to the selected payment method option and stored locally on the computing device is included in the order request submitted to the contact location.

 20. The method of claim 11, wherein the product metadata associated with
15 each product icon comprises shipping options available for shipping the product represented by the product icon.

 21. The method of claim 20, further comprising selecting a shipping method
option from the shipping options in the product metadata associated with the selected
20 product icon, and wherein the selected shipping option is included in the order request submitted to the contact location.

 22. The method of claim 11, wherein the product metadata associated with
each product icon comprises a product ID identifying the product represented by the
25 product icon, and wherein the product ID associated with the selected product icon is included in the order request submitted to the contact location.

 23. The method of claim 11, further comprising the step of extracting the
contact location from the product metadata stored locally on the computing device before
30 submitting the order request.

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24. A method for online shopping in a network comprising a plurality of vendor servers and a computing device operated by a user, comprising the steps of:

displaying a catalog from a vendor server on the computing device, the catalog comprising a plurality of product icons representing products available for sale, each
5 product icon having associated product metadata identifying the respective product and a contact location for purchasing the respective product;

selecting a product icon from the catalog, whereupon the product metadata associated with the selected product icon is stored locally in memory on the computing device;

10 displaying a local product icon identifying the selected product icon in a local shopping cart window on the computing device; and

selecting the local product icon from the local shopping cart window, whereupon an order request is submitted to the contact location identified in the product metadata associated with the selected product icon to initiate ordering of the product represented by
15 the selected product icon.

25. The method of claim 24, wherein the order request includes payment information comprising a method of paying for the product and shipping information identifying where the product is to be sent.

20

26. The method of claim 24, further comprising displaying a local shopping cart on the computing device, and wherein the step of selecting a product icon from the comprises dragging the selected product icon from the catalog to the local shopping cart.

25 27. The method of claim 24, wherein the contact location of the selected product icon comprises at least one of a Uniform Resource Identifier (URI), a FAX machine number, and an e-mail address.

30 28. The method of claim 24, wherein each of the plurality of product icons is contained in a graphical file and the product metadata associated with each respective product icon is attached to the graphical file containing the respective product icon.

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29. The method of claim 24, wherein each of the plurality of product icons is contained in a graphical file and the product metadata associated with each respective product icon is embedded in the graphical file containing the respective product icon.

5 30. A method for selling a product using a network, comprising:
being contacted by a remote computing device;
sending a catalog to the computing device, comprising a plurality of product icons displayable on the computing device, the product icons representing products available for sale, each product icon having associated product metadata, the product metadata
10 identifying a respective product and a contact location;
receiving a request from the computing device regarding a product of interest represented by one of the product icons;
sending product metadata for the product of interest to the computing device;
subsequently receiving an order request from the computing device at the contact
15 location, the order request comprising necessary product metadata to initiate ordering of the product identified by the product metadata; and
arranging for shipment of the product identified by the product metadata.

20 31. The method of claim 30, wherein a graphical file comprising the product icon representing the product of interest is sent with the product metadata to the computing device.

25 32. The method of claim 31, wherein the product metadata associated with the product icon is attached to the graphical file.

30 33. The method of claim 30, wherein each product icon is contained in a graphical file and the product metadata associated with each respective product icon is embedded in the graphical file containing the respective product icon, and wherein the step of sending product metadata comprises sending a graphical file representing the product of interest.

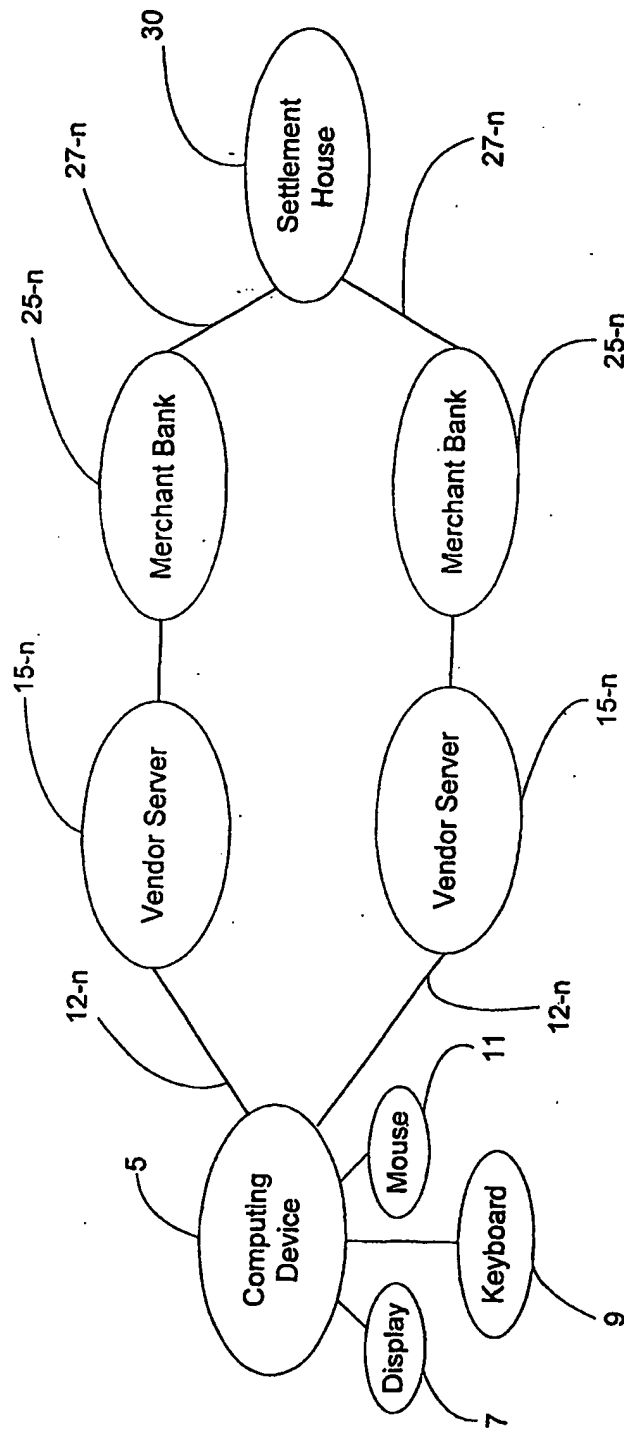


FIG. 1

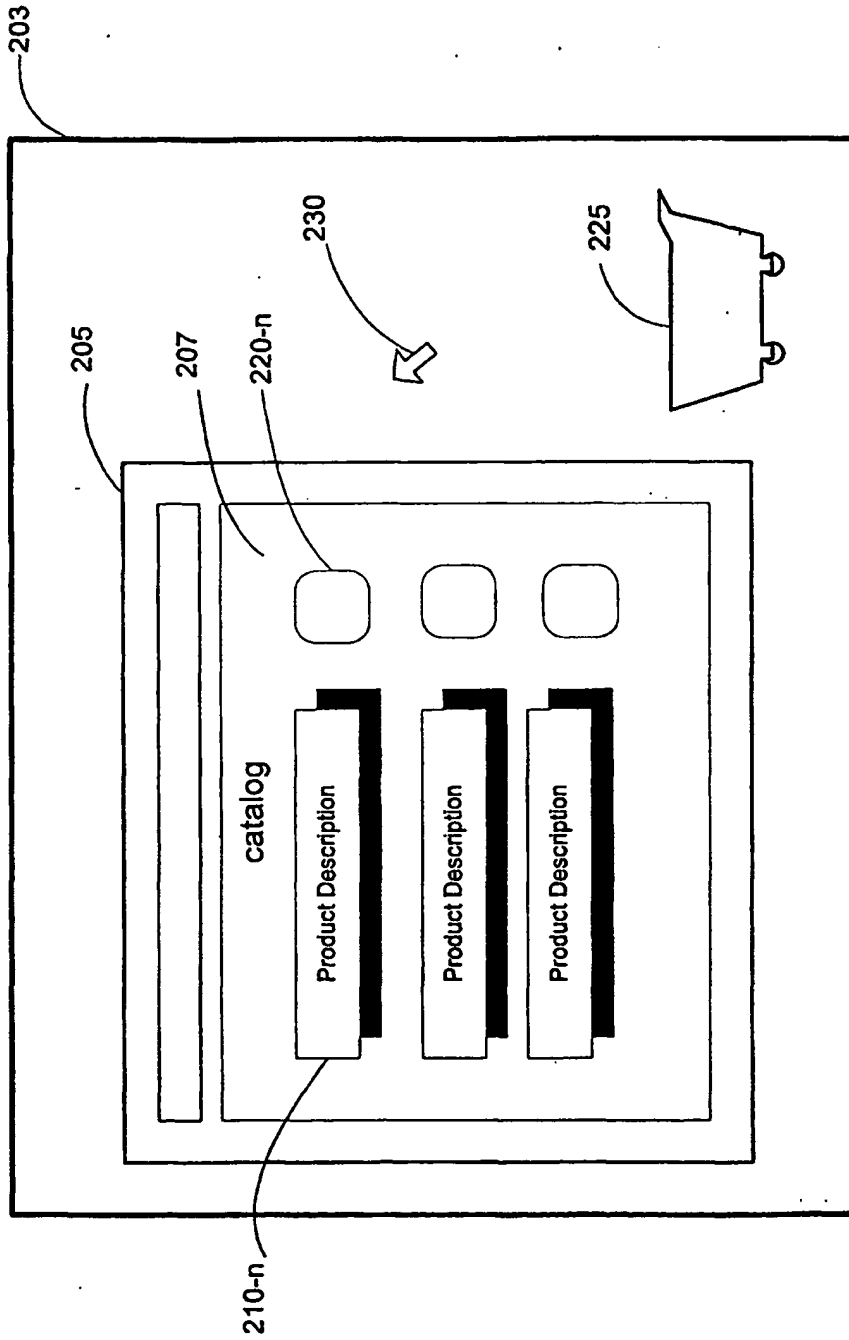


FIG. 2

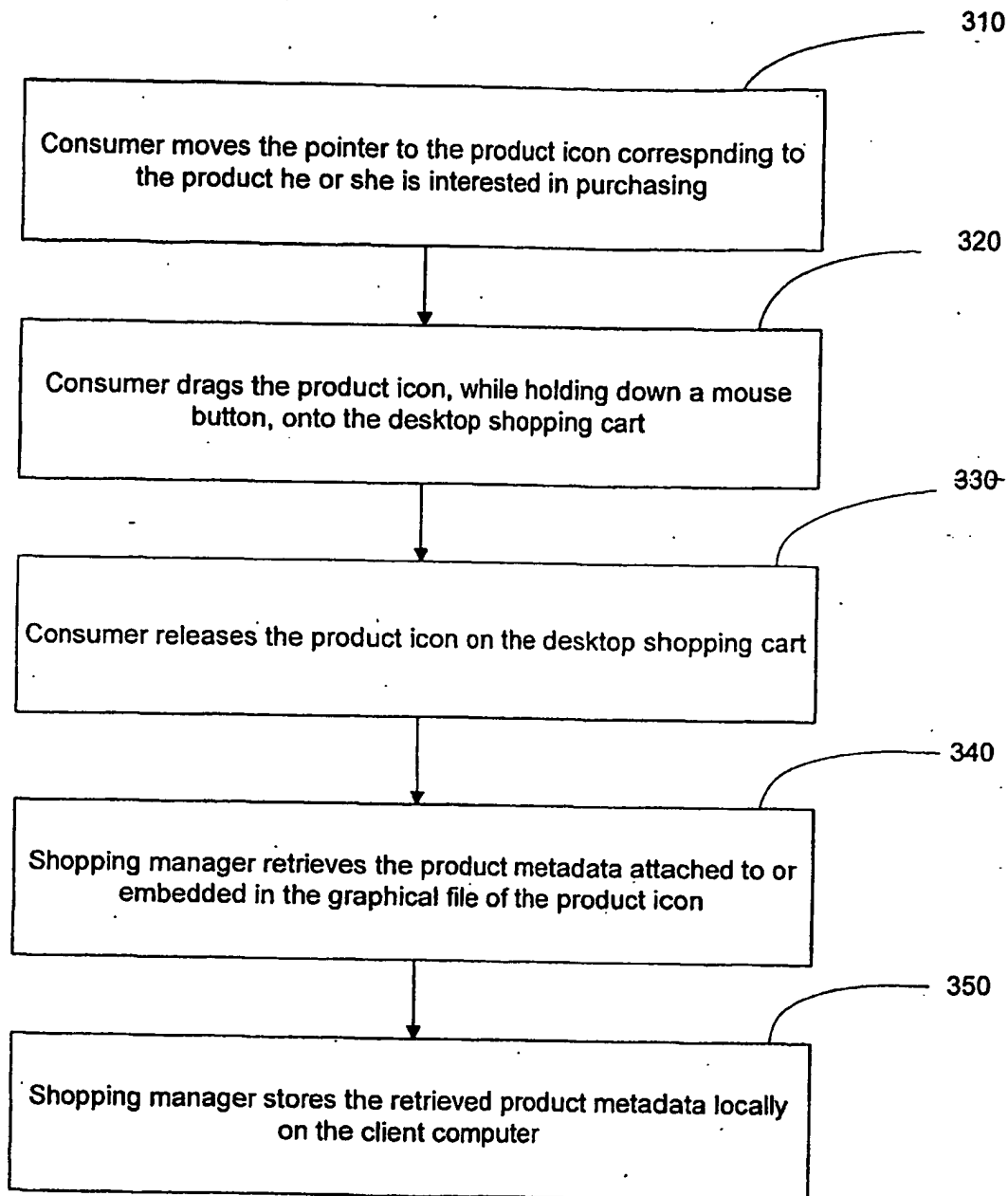


FIG. 3

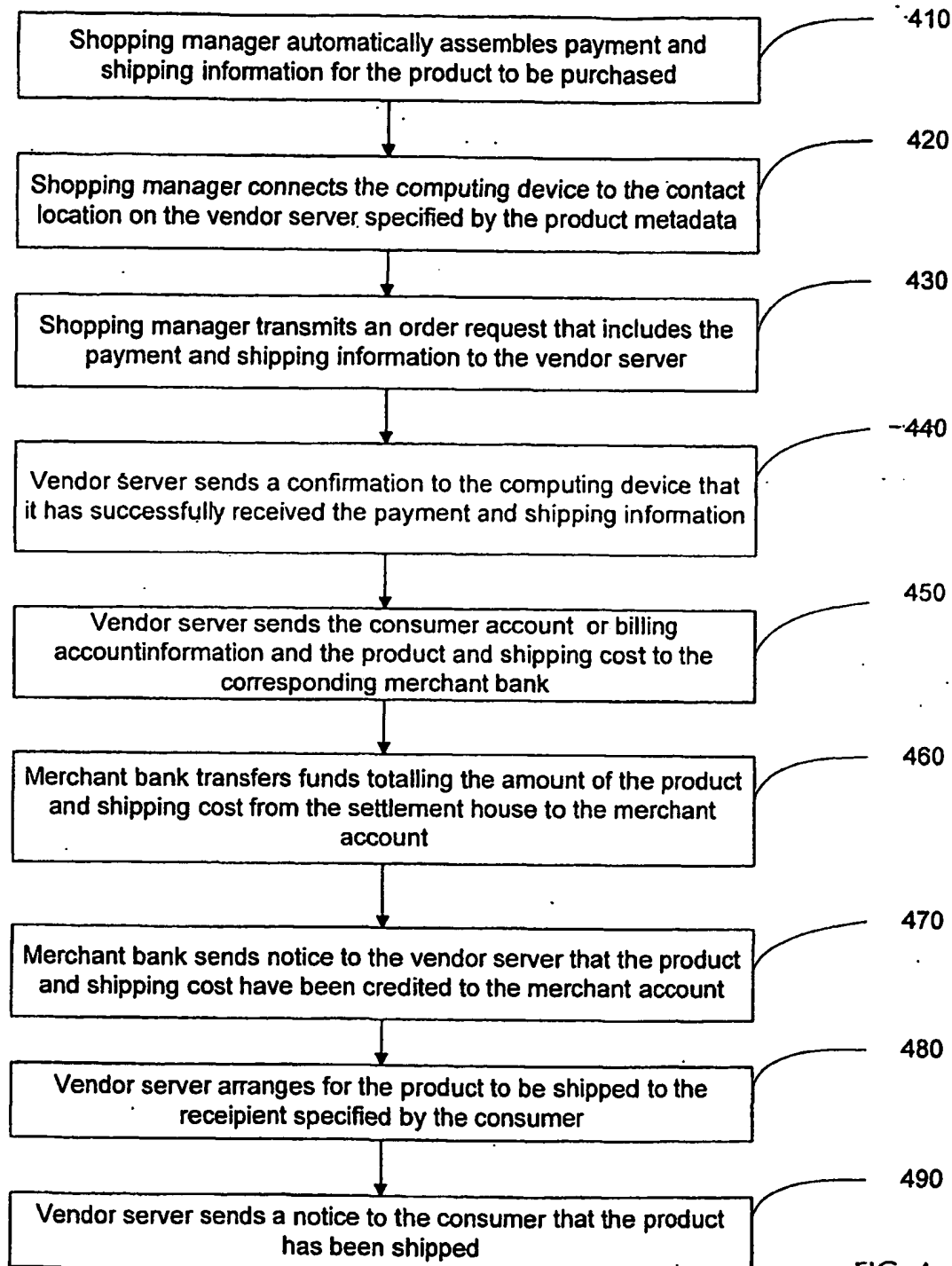


FIG. 4